

AMENDMENTS TO THE CLAIMS:

The listing of claims shown below will replace all prior versions, and listings of claims in the Application:

Claim 1 (currently amended) A Micro-Electro-Mechanical ~~System~~ capacitor apparatus, comprising:

a substrate, the substrate having an upper substantially parallel surface;

a bottom plate, the bottom plate being electrically conductive and substantially planar to and supported by the upper surface of the substrate, the plate being substantially continuous,

a passivation layer disposed above the plate ~~on the substrate~~, the passivation layer having a top surface; and

a microstructure suspended above the substrate, the plate and the passivation layer the microstructure having a bottom surface facing the top surface of the passivation layer, the microstructure being moveable toward the passivation layer so as to ~~touch~~ approach the passivation layer;

wherein the passivation layer is patterned to form a plurality of spaced protuberances disposed on the plate.

Claim 2 (previously canceled)

Claim 3 (previously presented) The Micro-Electro-Mechanical System apparatus of claim 1, wherein the bottom surface of the microstructure is substantially flat.

Claim 4 (previously presented) The Micro-Electro-Mechanical System apparatus of claim 1, wherein at least one of the protuberances has a square cross section.

Claim 5 (previously presented) The Micro-Electro-Mechanical System apparatus of claim 1,

wherein at least one of the protuberances has a rectangular cross section.

Claim 6 (previously presented) The Micro-Electro-Mechanical System apparatus of claim 1, wherein at least one of the protuberances has a hexagonal cross section.

Claim 7 (previously presented) The Micro-Electro-Mechanical System apparatus of claim 1, wherein the passivation layer is patterned to form a mesh.

Claim 8 (previously presented) The Micro-Electro-Mechanical System apparatus of claim 7, wherein the bottom surface of the microstructure is substantially flat.

Claim 9 (previously presented) The Micro-Electro-Mechanical System apparatus of claim 7, wherein the mesh is a square mesh.

Claim 10 (previously presented) The Micro-Electro-Mechanical System apparatus of claim 7, wherein the mesh is a hexagonal mesh.

Claim 11 (previously presented) The Micro-Electro-Mechanical System apparatus of claim 1, wherein the passivation layer comprises polyimide.

Claim 12 (previously presented) The Micro-Electro-Mechanical System apparatus of claim 1, wherein the passivation layer comprises silicon nitride.

Claim 13 (currently amended) A Micro-Electro-Mechanical System apparatus capacitor, comprising:

a substrate; the substrate having an upper substantially parallel surface,

a bottom plate, the bottom plate being electrically conductive, the plate being substantially planar and supported by the upper surface of the substrate, the plate being substantially continuous,

a passivation layer disposed above the plate ~~on the substrate~~, the passivation layer having a top surface;

a support attached to the substrate; and

a beam attached at one end to the support and suspended above the substrate, the passivation layer and the plate, the beam having a bottom surface facing the top surface of the passivation layer, the beam being moveable toward the passivation layer so as to touch the passivation layer;

wherein the passivation layer is patterned to form a plurality of spaced protuberances .

Claim 14 (previously presented) The Micro-Electro-Mechanical System apparatus of claim 13, further comprising a second support attached to the substrate and wherein the beam is attached to the second support at a second end.

Claim 15 (previously presented) The Micro-Electro-Mechanical System apparatus of claim 13, further comprising a bottom electrode on the substrate and underneath the bottom surface of the beam.

Claim 16 (previously cancelled)

Claim 17 (previously presented) The Micro-Electro-Mechanical System apparatus of claim 13, wherein the bottom surface of the beam is substantially flat.

Claim 18 (previously presented) The Micro-Electro-Mechanical System apparatus of claim 13, wherein at least one of the protuberances has a square cross section.

Claim 19 (previously presented) The Micro-Electro-Mechanical System apparatus of claim 13, wherein at least one of the protuberances has a rectangular cross section.

Claim 20 (previously presented) The Micro-Electro-Mechanical System apparatus of claim 13, wherein at least one of the protuberances has a hexagonal cross section.

Claim 21 (previously presented) The Micro-Electro-Mechanical System apparatus of claim 13, wherein the passivation layer is patterned to form a mesh.

Claim 22 (previously presented) The Micro-Electro-Mechanical System apparatus of claim 21, wherein the bottom surface of the beam is substantially flat.

Claim 23 (previously presented) The Micro-Electro-Mechanical System apparatus of claim 21, wherein the mesh is a square mesh.

Claim 24 (previously presented) The Micro-Electro-Mechanical System apparatus of claim 21, wherein the mesh is a hexagonal mesh.

Claim 25 (previously presented) The Micro-Electro-Mechanical System apparatus of claim 13, wherein the passivation layer comprises polyimide.

Claim 26 (previously presented) The Micro-Electro-Mechanical System apparatus of claim 13, wherein the passivation layer comprises silicon nitride.

Claims 27-38 (previously cancelled)

Claim 39 (previously presented) The Micro-Electro-Mechanical System apparatus of claim 1, wherein the passivation layer is made of a dielectric material selected from the group consisting of silicon oxide, strontium titanate oxide, barium strontium titanate, and benzocyclobutene.

Claim 40 (previously presented) The Micro-Electro-Mechanical System apparatus of claim 13, wherein the passivation layer is made of a dielectric material selected from the group consisting of silicon oxide, strontium titanate oxide, barium strontium titanate, and benzocyclobutene.